

CLAIMS

1. A receiver for receiving a data signal from a reference transmitter and a
2 non-reference transmitter, wherein the reference transmitter covers the
transmitted data signal using a reference cover and the non-reference
4 transmitter covers the transmitted data signal using a non-reference cover, the
receiver comprising:

6 at least one antenna, for receiving the data signal;
for each of said at least one antenna, a sampler for sampling the data
8 signal received through the corresponding antenna and producing received
samples;

10 a recorrelator for recorrelating said received samples using the non-
reference cover and the reference cover to produce recorrelated samples; and

12 a cover equalizer for performing cover equalization using said received
samples and said recorrelated samples.

2. A method for receiving a data signal from a reference transmitter and a
2 non-reference transmitter, wherein the reference transmitter covers the
transmitted data signal using a reference cover and the non-reference
4 transmitter covers the transmitted data signal using a non-reference cover, the
method comprising:

6 receiving the data signal through at least one antenna;
sampling the data signal received through each of said at least one
8 antenna to produce received samples;

10 recorrelating said received samples using the non-reference cover and
the reference cover to produce recorrelated samples; and

12 performing cover equalization using said received samples and said
recorrelated samples.

3. A computer readable media embodying a method for receiving a data
2 signal from a reference transmitter and a non-reference transmitter, wherein the
reference transmitter covers the transmitted data signal using a reference cover

4 and the non-reference transmitter covers the transmitted data signal using a
non-reference cover, the method comprising:
6 receiving the data signal through at least one antenna;
sampling the data signal received through each of said at least one
8 antenna to produce received samples;
recorrelating said received samples using the non-reference cover and
10 the reference cover to produce recorrelated samples; and
performing cover equalization using said received samples and said
12 recorrelated samples.

4. A remote station apparatus comprising:
2 means for receiving the data signal through at least one antenna;
means for sampling the data signal received through each of said at least
4 one antenna to produce received samples;
means for recorrelating said received samples using the non-reference
6 cover and the reference cover to produce recorrelated samples; and
means for performing cover equalization using said received samples
8 and said recorrelated samples.